LITVINENKO, V. I.; MAKSYUTINA, N. P.; KOLESNIKOV, I. G.

Flavonoid compounds of Glycyrrhiza glabra L. Zhur. ob. khim.
33 no.1:296-299 '63.   (MIRA 16:1)

1. Khar'kovskiy nauchno-issledovatel'skiy khimiko-farmatsev-
ticheskiy institut.

(Flavonoids)

MAKSYUTINA, N.P.; KOLESNIKOV, D.G.

Flavonoids of parsnip fruit (Pastinaca sativa L.). Dokl. AN SSSR
142 no.5:1193-1196 F '62.   (MIRA 15:2)

1. Khar'kovskiy nauchno-issledovatel'skiy khimiko-farmatsevticheskiy
institut. Predstavleno akademikom A.I.Oparinym.
                              (Flavonoids)
                              (Parsnip)

LITVINENKO, V.I.; MAKSYUTINA, N.P.; KOLESNIKOV, D.G.

Production of a polyamide sorbent. Med. prom. 16 no.3:40-43 Mr '62.
(MIRA 15:5)

1. Khar'kovskiy nauchno-issledovatel'skiy khimio-farmatsevticheskiy
institut.

(SORBENTS)   (POLYMIDES)

MAKSYUTINA, N.P.; KOLESNIKOV, D.G.

Furocoumarins in some types of Pastinaca sativa. Med. prom.
16 no.2:11-14 F '62. (MIRA 15:3)

1. Khar'kovskiy nauchno-issledovatel'skiy khimiko-farmatsev-
ticheskiy institut.
(PARSNIPS)
(FUROCOUMARIN)

MAKSYUTINA, N.P.; KOLESNIKOV, D.G.

Xanthotoxin form parsnip fruits. Zhur. ob. khim. 31 no.4:1386-1389 Ap '61. (MIRA 14:4)

1. Khar'kovskiy nauchno-issledovatel'skiy khimiko-farmatsevticheskiy institut.

(Parsnips)   (Xanthotoxin)

Furocoumarins in the Fruits of Pastinara Sativa L.   SOV/20-124-6-42/55

Their biological properties, however, are opposite.
An experimental section presents the usual data. There are
1 table and 12 references, 1 of which is Soviet.

ASSOCIATION: Khar'kovskiy nauchno-issledovatel'skiy khimiko-
farmatsevticheskiy institut (Khar'kov Scientific Chemico-
pharmaceutical Research Institute)

PRESENTED: November 3, 1958, by A. I. Oparin, Academician

SUBMITTED: November 3, 1958

Card 3/3

Furocoumarins in the Fruits of Pastinaca Sativa L. SOV/20-124-6-42/55

(substances (1), (7), (5) and (6)) or an opposite effect
(substances (2) and (8)). All 7 substances form the furan-
dicarboxylic acid owing to oxidation with H_2O_2 and contain a
coumaric lactone the ring of which opens in alkaline medium
and closes again in an acid one. These data (in addition to
other physicochemical ones) permit the conclusion that the
substances under review belong to the group of natural furo-
coumarins (Table 1). (1), (2), (5) and (6) are identical with
the known furocoumarins: imperatorin (II), bergaptene (III),
isopimpinellin (IV) and xanthotoxol (V), respectively. This was
confirmed by the production of several derivatives. The
remaining substances: Pastinazine (3) and (7) could not be
identified with any of the furocoumarins known so far. It may
be seen from table 1 that they are very similar to substance (2)
and, furthermore, they have identical R_f values in the
chromatograms of 8 solvents investigated.

Card 2/3

17(3)

AUTHORS: Maksyutina, N. P., Kolesnikov, D. G.   SOV/20-124-6-42/55

TITLE: Furocoumarins in the Fruits of Pastinaca Sativa L.
             (Furokumariny plodov pasternaka posevnogo Pastinaca sativa L.)

ABSTRACT: The application field of Pastinaca and P. opopanax are
             presented (Refs 1-8). The authors investigated the spasmolytic
             effect of the substances contained in the seed of Pastinaca
             (of the variety Student from the Krasnodar and Stavropol' area)
             by chromatographic separation (Ref 9). They could isolate
             7 crystalline substances. One of these substances called
             pastinazine by the authors exerted a pronounced spasmolytic
             effect and caused a vasodilatation in the heart, liver, kidneys
             and other internal organs in concentrations of 1.10^{-7} (Ref 10).
             It can be used in the treatment of some kinds of stenocardia
             (clinical investigations were performed by M. I. Shubov,
             Khar'kov, M. I. Zolotova-Kostomarova, Moscow, and
             S. N. Sinel'nikov, Khar'kov). Some other substances obtained
Card 1/3   from Pastinaca seed exerted either a shorter

The Cardiac Glycosides in the Seeds of Treacle-Mustard (Erysimum cheiran-thoides L.

79-23-5-62/69

portant active substance of the seeds. According to the stated physico-chemical data erysimotoxin posseses an aldehyde group, two secondary and two tertiary hydroxyl groups, and one un-saturated lactone cycle of five links. Its sugar component is represented by one molecule of the 2-deoxy-sugar in the paper chromatographs—this component proved identical with digitoxose. According to the investigations of the glycoside, its acetyl derivative, its aglycone (the nonsugar component), and its sugar component, the mentioned structure can be attributed to erysimotoxin (see diagrams). Erysin is chemically a glycoside with a five-member lactone ring without 2-desoxy sugar. Thus altogether ten glycosides were found in the seeds. There are 3 figures and 10 references, 9 of which are Soviet.

ASSOCIATION: Khar'kovskiy nauchno-issledovatel'skiy khimiko-farmatsevticheskiy institut (Khar'kov Scientific Chemical and Pharmaceutical Research Institute)

SUBMITTED: March 30, 1957

Card 2/2

AUTHOR: Maksyutina, N. P

TITLE: Cardiac Glycosides in the Seeds of Treacle-Mustard (Ery-
simum cheiranthoides L.) (Serdechnyye glikozidy semyan
zheltushnika levkoynogo (Erysimum cheiranthoides L.))

ABSTRACT: In the present paper the author tried to investigate the
proportion of glycosides in the seeds of treacle-mustard and
to separate the most active one of them in crystalline state.
In this investigation of the seeds by means of paper chromato-
graphy seven glycosides were found in more or less considerable
quantities and three in small traces. By means of mild fermen-
tative cleaving the author succeded in separating from the
seeds two glycosides in crystalline state with melting points
of 196-197° and 224-226°C. The first named "Erysimotoxin" was
obtained in a yield of 0.1%. Both glycosides are of high
biologic activity and exceed in intensity strophantine, zyma-
rine, digitoxin, convalloside and other well-known cardiac glyco-
sides. The high biologic activity and the comparatively high
yield of erysimotoxin allow to refer to it as to the most im

Card 1/2

MAKSYUTINA, N.P., KOLESNIKOV, D.G.

Chromatographic method for obtaining pastinacin. Med.prom. 12
no.6:12-16 Je '58   (MIRA 11:7)

1. Khar'kovskiy nauchno-issledovatel'skiy khimiko-farmatsevticheskiy
institut.
          (PARSNIP)
          (EXTRACTION (CHEMISTRY))

KOLESNIKOV, D.G., MAKSYUTINA, N.P., BEZRUK, P.I.

Spasmolytic substances from parsley seeds. Apt.delo 7 no.4:27-30
Jl-Ag'58   (MIRA 11:8)

(ANTISPASMODICS)
(PARSLEY)

MAKSYUTINA, N. P.

USSR/Cultivated Plants - Medicinal. Essential Oil-Bearing.   M
            Toxins.

Abs Jour   : Ref Zhur Biol., No 18, 1958, 82580

Author   : Kolesnikov, D.G., Maksyutina, N.P.
Inst   : -
Title   : Cardiac Glycosides of the Leaves of the Plains Erysimum
              (Cheiranthus alliokii Hofm.).

Orig Pub   : Med. prom-st' SSSR, 1957, No 12, 27-30

Abstract   : No abstract.

Card 1/1

USSR/Pharmacology and Toxicology. Cardiovascular Agents   V-5

Abs Jour : Ref Zhur - Biol., No 15, 1958, No 71216

Author   : Kolesnikov D.G., Maksyutina N.P.
Inst   : -
Title   : Cardiac Glycosides from Seeds of Cheiranthus Allionii Hofm.

Orig Pub :Med. prom-st' SSSR, 1957, No 9, 14-18

Abstract : A composite glycoside preparation, corchallin, and crystal-
           line glycoside alliozid A, were obtained from seeds of
           Cheiranthus Allionii Hofm. The aglycone of alliozid A was
           identified as strophanthidin. The sugar component of
           glycoside is identified by one molecule of 2-desoxy-sugar.
           -- From the authors' summary.

           Khar'kov Sci Res Chem. Pharm. Inst.

Card   : 1/1

USSR / Pharmacology, Toxicology. Cardiovascular Drugs.   V

Abs Jour: Ref Zhur-Biol., No 9, 1958, 42380.

Author : Kolesnikov, D. G.; Maksyutina, N. P.
Inst   : Not Given.
Title   : The Preparation of Convalloside from the Seeds of
          Convallaria.

Orig Pub: Med. Prom-st SSSR, 1957, No 6, 38-40.

Abstract: Convalloside, a highly active crystalline cardiac
          glycoside, was extracted from the seeds of conval-
          laria. According to pharmacological and clinical
          data, its action is close to strophantin.

Khar'kov Sci Res Chem. Pharm Inst.

Card 1/1

23
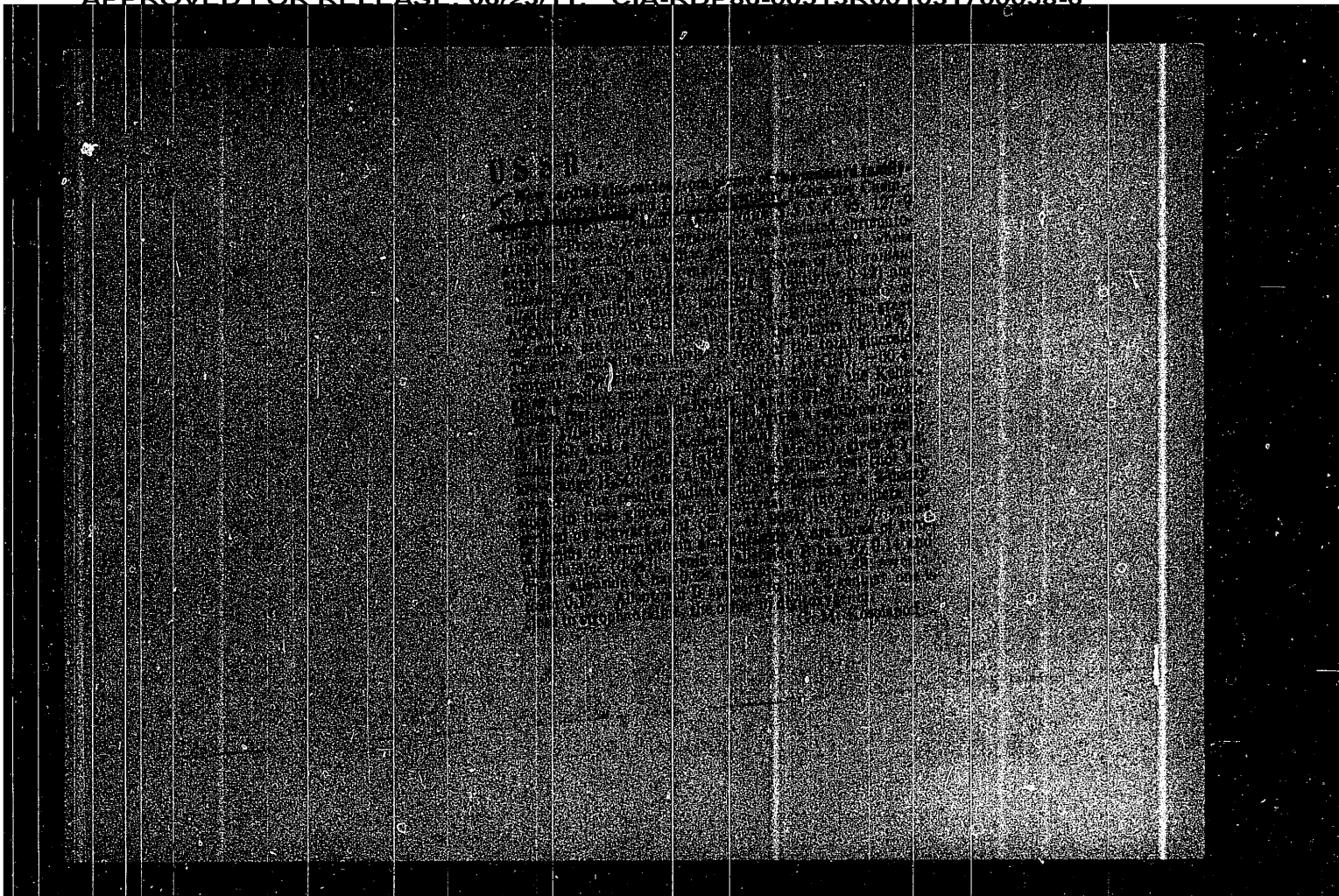
ILLEGIBLE

MAKSYUTINA, N.P.

"The Possibility of the Complex Utilization of Pine Needles for the Preparation of Vitamin C and Carotin Concentrates." Cand Pharm Sci, Latvian State U, Riga, 1954. (RZhKhim, No 7, Apr 55)

SO: Sum. No. 704, 2 Nov 55 - Survey of Scientific and Technical Dissertations Defended at USSR Higher Educational Institutions (16)

MAKSYUTINA, N. P.

"Extraction and Chemical Study of Cardiac Glycosides From the Narrow-Leaved Lilac." Cand Pharm Sci, Moscow Pharmaceutical Inst, Moscow, 1954. (MR, 12 Nov 54)

Survey of Scientific and Technical Dissertations Defended at USSR Higher Educational Institutions (11)

SO: Sum. No. 521, 2 Jun 55

MAKSYUTINA, N.P.

Cardiac glycosides in plants of the genus Syrenia. Dokl. AN SSSR
158 no.4:977-980 O '64.   (MIRA 17:11)

1. Khar'kovskiy nauchno-issledovatel'skiy khimiko-farmatsevtiches-
kiy institut. Predstavleno akademikom A.I. Oparinym.

L 27451-66

ACC NR: AP5025962

of the saponified copolymers was found to depend on the amount of I and on the degree of saponification of the copolymer. Copolymers made from 5% of I in the initial reaction mixture have the greatest exchange capacity (9 mg. equiv/gm) and show high resistance to hydrolysis in 5N mineral acid and alkali solutions. "In conclusion we thank V. A. Shevelev for obtaining the IR spectra." Orig. art. has: 3 tables and 1 figure.

SUB CODE: MT, OC/ SUBM DATE: 18Nov64/ ORIG REF: 006/ OTH REF: 000

Card 2/2

L 27451-66   EWT(m)/EWP(j)/T   RPL   WW/RM

ACC NR: AP5025962   SOURCE CODE: UR/0190/65/007/010/1758/1762

AUTHOR: Kalabina, A. V.; Tsarik, L. Ya.; Bodyukh, L. A.; Maksyutin, Yu. K.

ORG: Irkutsk State University (Irkutskiy gosudarstvennyy universitet)

TITLE: Investigations in the polymerization and copolymerization of vinylaryl ethers and their derivatives. Report No. 6. Copolymerization of hydroquinone dimethyl ether with methylmethacrylate

TOPIC TAGS: methylmethacrylate, alkaryl ether, copolymerization, radical polymerization, copolymer, ion exchange resin, polymer structure

ABSTRACT: The copolymerization of hydroquinone dimethyl ether (I) with methylmethacrylate (MMA) was investigated. Bulk polymerization of 1-20% I with 99-80% MMA initiated by azobisisobutyronitrile gave 20% yields of cross-linked polymers whose ether linkage content increased with initial amount of I. Benzoyl peroxide initiated suspension copolymerization was carried out. The use of a combination of starch and talcum as suspension stabilizers was required in order to form copolymer granules. High copolymer yields (88%) were obtained when a 1:3 ratio of monomer mixture: water was used. The static exchange capacity

Card 1/2   UDC: 66.095.26+678.744+678.746

KALABINA, A.V.; KOLMAKOVA, E.F.; BYCHKOVA, T.I.; MAKSYUTIN, Yu.K.;
DENISEVICH, E.A.; SMOLINA, G.I.

Substituted vinyl and ethyl aryl ethers. Part 1: Reaction of
phenyl sulfenyl chloride with vinyl aryl ethers. Zhur. ob.
khim. 35 no.6:979-982 Je '65.   (MIRA 18:6)

1. Irkutskiy gosudarstvennyy universitet.

KALABINA, A.V.; TSARIK, L.Ya.; BODYUKH, L.A.; MAKSYUTIN, Yu.K.

Copolymerization of hydroquinone divinyl ether with methyl methacrylate. Vysokom.soed. 7 no.10:1758-1762 O '65.
(MIRA 18:11)

1. Irkutskiy gosudarstvennyy universitet.

KALABINA, A.V.; BYCHKOVA, T.I.; MAKSYUTIN, Yu.K.

Synthesis and transformations of halo-substituted vinyl aryl ethers. Part 1: Cis- and trans- β-chlorovinyl aryl ethers. Zhur. org. khim. 1 no.8:1406-1411 Ag '65. (MIRA 18:11)

1. Irkutskiy gosudarstvennyy universitet.

MAKSYUTIN, Yu.K.; FROLOV, Yu.L.; KALABINA, A.V.; SHEVELEVA, V.A.

Hydrogen bonding between phen ls and vinyl and aryl ethers.
Zhur.fiz.khim. 38 no.11:2604-2607 N '64.   (MIRA 18:2)

1. Irkutskiy gosudarstvennyy universitet imeni Zhdanova.

MAKSYUTIN G.V.

Country : USSR   0
Category: Plant Diseases. Diseases of Cultivated Plants.

Abs Jour: RZhBiol., No 18, 1958, No 82665

Author : Trunov, G.A.; Maksyutin, G.V.
Inst   : Khar'kov Agricultural Institute
Title   : Extremely Low Temperatures and Smut in Wheat and
          Onions.

Orig Pub: Zap. Khar'kovsk. s.-kh. in-ta, 1957, 13 (50), 117-121

Abstract: In 1954 an experiment was conducted to examine the possi-
          bility of finding a cure for loose smut in summer wheat
          by means of 3- and 4-hour treatment of the grain in
          chambers at low temperatures (-70 degrees) and in con-
          tainers (?) with liquid nitrogen (-196 degrees). Treat-
          ment of the dry grain with these temperatures did not

Card   : 1/2

MAKSYUTENKO, I.N., inzhener-konstruktor

UShP-300 automatic winding machine. Tekst.prom. 21 no.7:33
Jl '61.
(MIRA 14:8)

(Textile machinery)

L 04226-67

ACC NR: AR6031854

and charge distribution in the initial fragments at the given neutron energies, as well as the measurement of absolute yields of the delayed neutrons. V. Pavlinchuk. [Translation of abstract]

SUB CODE: 18, 20/

Card 2/2

L 04226-67   EWT(m)/EWP(t)/ETI   IJP(c)   JD/JG

ACC NR: AR6031854   SOURCE CODE: UR/0058/66/000/006/V020/V020

AUTHOR: Maksyutenko, B. P.   /8

                                                /9   27   B

TITLE: Delayed neutrons and (n, nf) reaction on uranium isotopes

SOURCE: Ref. zh. Fizika, Abs. 6V163

REF SOURCE: Byul. Inform. tsentra po yadern. dannym, vyp. 2, 1965, 161-166

TOPIC TAGS: delayed neutron, fission neutron yield, uranium isotope, accelerator/Van de Graaf accelerator

ABSTRACT: Fission yields of delayed neutrons were measured during fission of U^{233} by neutrons with energies of 2.3, 5.6 and 7.25 Mev and of U^{235} by neutrons with an energy of 7.22 Mev. Experiments were made on a Van de Graaf accelerator with tritium and deuterium targets. A smooth variation in the yield ratio of delayed neutrons between the various cross-section plateaus, as well as abrupt jumps especially in the case of yields of delayed neutron groups with half-decay periods of 2.2 and 55 sec, were observed. The possible causes of yield ratio variations due to reaction (n, n'f) are analyzed. It is stressed that an interpretation of the results obtained necessitates the investigation of corresponding mass

Card 1/2

L 27478-66

ACC NR: AT6008421

In the fission cross section of Th-232 a change in the maximum energy of the neutrons by an amount equal to the halfwidth of the spectrum or even less (200-500 kev) gives rise to a noticeable change in the ratio of the group yields, even for a small halfwidth of the neutron spectrum (500 kev). The results are presented in tabular form and in the form of a graph. Orig. art. has: 1 figure and 2 tables.

SUB CODE: 20/   SUBM DATE: 00/   OTH REF: 001

Card 2/2

L 27478-66   EWT(m)/EPF(n)-2/EWA(h)

ACC NR: AT6008421   SOURCE CODE: UR/3158/65/000/026/0001/0004

AUTHOR: Maksyutenko, B. P.

ORG: None

TITLE: Delayed neutrons at the fission threshold of throium-232

SOURCE: Obninsk. Fiziko-energeticheskiy institut. Doklady, no. 26, 1965.
Zapazdyvayushchiye neytrony u poroga deleniya toriya-232, 1-4

TOPIC TAGS: uranium, thorium, fission cross section, slow neutron

ABSTRACT: This is a continuation of earlier work by the author (Symposium on the Physics and Chemistry of Fission, Salzburg, 22-26 March, 1965, SM-60/84) where it was shown that the yield ratio changes abruptly at the threshold of U-238 fission. Since the fission cross section of Th-232 near threshold is not a continuous function as for U-238 but has several maxima and minima, the author has measured the yield of the delayed neutrons of energy 1.6-2.6 Mev obtained in the reaction T(p,n)He^3 with a Van der Graaff generator. The decay curves were processed with an electronic computer. The results show that in the vicinity of the first step

Card 1/2

L 6472-66 EWT(m)/EPF(n)-2/EWA(h) DM
ACCESSION NR: AP5019813

UR/0089/65/019/001/0046/0046
539.125.5:539.163.1

AUTHOR: Maksyutenko, B. P.

TITLE: Relative yields of delayed neutrons in the fission of U^{235} and U^{238}

SOURCE: Atomnaya energiya, v. 19, no. 1, 1965, 46

TOPIC TAGS: neutron flux, slow neutron, nuclear fission, neutron interaction, enriched uranium, half life

ABSTRACT: The maximum fissioning-neutron energy was 6.0 Mev. A metallic sample of uranium, enriched to 90% U^{235}, was used. The over-all decay curve was obtained by making 20 runs and contained 700,000 counts. The resolution was by means of an electronic computer, using the matrix inversion method for specified half-life values. The measurements, like those previously made by the author (ZhETF v. 35, 815, 1958), point to a smooth variation of the yields with the fissioning-neutron energies. In the case of U^{238} the sample was irradiated with neutrons of maximum energy 1.75 Mev, from the $T(p, n)He^3$ reaction in a Van de Graaff accelerator. In this case the results differ from earlier data, probably owing to channel effects. The results are listed in the Enclosure. Orig. art. has: 2 tables.

ASSOCIATION: none

Card 1/3

Table 2. Relative Yields

Elem.	Thermal	1.5 MeV	6 MeV	15 MeV
		4.13 ± 0.05	2.83 ± 0.03	2.39 ± 0.05
		2.16 ± 0.09	2.02 ± 0.04	1.84 ± 0.05
		6.02 ± 0.51	4.76 ± 0.17	3.97 ± 0.28
		11.30 ± 0.36	10.03 ± 0.92	9.90 ± 0.19

Card 4/6

Transcription 1/70AP292

Orsay Laboratory, and by neutrons having other energies. The results were calculated with an electronic computer, using the same decay constants for all energies. The results were also compared with the data for thermal neutrons (F. N. Flipin, Atomnaya energiya ... , 1958) with which they agreed within 15%. The results are listed in Table 3 of the enclosure. It is concluded that the yield changes very smoothly with increasing energy of the fissioning neutrons, thus indicating that the decay curve is uniformly deformed. It was noted that the yield ratio in the 3-6 MeV range is sometimes larger than in the 6-15 MeV range, meaning that the variation is greater even before the reaction (n, 2n) comes into play. This reaction can therefore not be responsible for the variation in the yield as the neutron energy varies from thermal to 15 MeV. Orig. art. has: 1 formula and 3 tables.

S/0286/65/000/005/0054/0054

MAKSYUTENKO, B. P.

"Measurement of the ratio of the yields of groups of delayed neutrons on the magnitude of the energy of the neutrons causing fission in U-235."

report submitted for IAEA Intl Nuclear Data Sci Working Group Mtg, Vienna, 9-13 Nov 64.

MAKSYUTENKO, B.P.

Lagging neutrons from U^{233} fission by 15 Mev. neutrons. Atom. energ. 15 no.4:321-322 O '63.

(MIRA 16:10)

MAKSYUTENKO, B.P.

Delayed neutrons from Pu^{239}. Atom. energ. 15 no.2:157 Ag '63.
(MIRA 16:8)

(Plutonium) (Neutrons)

MAKSYUTENKO, B. P. Cand Phys-Math Sci -- (diss) "Absolute and relative yields
of delayed neutrons during the fission of 238-uranium, 235-uranium, and 232-thorium
by fast neutrons." /Mos/ , Printing house of MIPhI /Mos Physics and Engineering Inst/,
1959. 19 pp , 100 copies. Bibliography: pp 18-19 (19 titles) (KL, 44-59, 125)

-2-

SOV/56-35-3-53/61

The Relative Yields of Delayed Neutrons in the Fission of U^{238}, U^{235} and Th^{232} on Fast Neutrons.

tically no background. The decay curves for one and the
same element which were determined by various experiments
are united into a single curve. Five groups of delayed neut-
rons were distinguished. A sixth group was not determined
separately because of its low intensity and short life. All
curves were calculated by the method of the smallest squares;
measuring results are given by a table. The author thanks
O. D. Kazachkovskiy for valuable directions and for his
interest in this work. There is 1 table.

Card: 2/2

21(7)
AUTHOR: Maksyutenko, B. P.   SOV/56-35-3-53/61

TITLE: The Relative Yields of Delayed Neutrons in the Fission of
           U^{238}, U^{235} and Th^{232} on Fast Neutrons (Otnositel'nyye vykhody
           zapazdyvayushchikh neytronov pri delenii U^{238}, U^{235} i Th^{232}
           na bystrykh neytronakh)

PERIODICAL: Zhurnal eksperimental'noy i theoreticheskoy fiziki, 1958,
            Vol 35, Nr 3, pp 815-816 (USSR)

ABSTRACT: The present paper contains a report on the measurements
            carried out of the relative yields of delayed neutrons in
            the fission of natural uranium, U^{235} (90% enriched) and Th^{232}
            by neutrons having an energy of 15,0 + 0,9; 3,3+ 7 and
            2,4+ 0,3 MeV. The 15,0 MeV neutrons were produced by bombard-
            ing a thick tritium target with 440 keV deuterons. The
            reaction $D(d,n)He^3$ served as a source of the neutrons with
            3,3 and 2,4 MeV. Also gauging was carried out on thermal
            neutrons. As detector, a block with four counters with BF^3,
            was used, which were connected in parallel and were surrounded
            by paraffin. Two series of irradiations lasting 300 and 30
            seconds respectively were carried out. Measurement took 360
Card 1/2   and 30 seconds respectively. During measurements there was prac-

MaKsyutenko, A.

MAKSYUTENKO,A., inzhener

Improving the design of the K-80 carburetor. Avt.transp.33 no.8:
32 Ag'55.   (MLRA 8:12)
              (Automobile--Engines--Carburetors)

MAKSYUTA, V.I., kand.tekhn.nauk

Complete automation of the production of soda ash. Zhur.VKHO 6
no.5:517-523 '61.   (MIRA 14:10)
(Automatic control)   (Sodium carbonate)

5(1)   SOV/112-59-3-5624

Translation from: Referativnyy zhurnal, Elektrotekhnika, 1959, Nr 3, p 193 (USSR)

AUTHOR: Maksyuta, V. I.

TITLE: Automation of the Soda Industry (Avtomatizatsiya sodovogo proizvodstva)

PERIODICAL: V sb.: Avtomatiz. khim. i koksokhim. proiz-v. M., Metallurgizdat,
       1958, pp 108-130

ABSTRACT: General principles of automation of the soda industry are considered.
       Examples are cited illustrating the methods developed by NIOKhIM of complex
       automation systems for technological divisions and departments of a soda plant.
       Eight illustrations. Bibliography: 7 items.

Card 1/1

MAKSYUTA, V. I.

Maksyuta, V. I. -- "Complex Automatization of a Station of a Soda Carboniza-
    tion Plant." Min Higher Education USSR, Khar'kov Polytechnic Inst
    imeni V. I. Lenin, Khar'kov, 1955 (Dissertation for the Degree of Candidate
    in Technical Sciences)

SO: Knizhnaya Letopis', No. 23, Moscow, Jun 55, pp 87-104

MAKSYUTA, V. I.

Maksyuta, V. I. - "The work of the Laboratory for Automati-
zation", Trudy Vsesoyuz. in-ta sodovoy prom-sti, Vol. ,
1949, p. 18-23.

CA

MAKSYUTA, V.I.

Automatic analyzer of high concentrations of hydrogen.
V. I. Maksyuta. *Zavodskaya Lab.* 9, 1236-40(1940).—
Details of construction and operation of app. for auto-
matically recording concn. of H_2 in cathode space of elec-
trolytic cells used in the manuf. of Cl_2 and alkali. App.
is based on the principle of comparing heat cond. of gas
with a standard. Tests in factory proved successful.
R. Z. Kamich

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

VOLCHENKO, V.V.; MAKSYUTA, I.M.

Contribution by the machine operators of interdistrict units.
Zashch.rast.ot verd.i bol. 7 no.4:7-8 Ap '62.   (MIRA 15:12)

1. Obshchestvennyy korrespondent zhurnala "Zashchita rasteniy"
(for Volchenko). 2. Nachal'nik Baranovichskogo otryada po bor'be
s vreditelyami i boleznyami rasteniy (for Maksyuta).
          (White Russia—Spraying and dusting equipment)

STOLYAROV, Sergey Grigor'yevich; MAKSYUKOVA, V.N., red.; PYATAKOVA,
N.D., tekhn. red.

[Prices and price determination in the U.S.S.R.; essays in
statistics and economics] O tsenakh i tsenoobrazovanii v
SSSR; statistiko-ekonomicheskie ocherki. Izd.2., dop. i pe-
rer. Moskva, Gosstatizdat, 1963. 215 p. (MIRA 17:3)

D'YACHKOV, Mikhail Fedorovich; MAKSYUKOVA, V.N., red.

[Statistical problems of construction put in place]
Voprosy statistiki produktsii stroitel'stva. Moskva,
Statistika, 1964. 110 p. (MIRA 17:6)

MARIN, Lev Georgiyevich; MAKSYUKOVA, V.N., red.; IL'YUSHENKOVA,
T.P., tekhn. red.

[How to calculate the national income of the U.S.S.R.]
Kak ischisliaetsia natsional'nyi dokhod SSSR. Moskva,
Gosstatizdat, 1963. 67 p. (MIRA 17:1)
(Income)

MAKSYUK, I.Yu., brigadir chekanshchikov

Pipe beading operations. Metallurg 8 no.7:12-14 Jl '63.
(MIRA 16:8)

1. Domennoy tsekh zavoda "Zaporozhstal'."
(Blast furnaces—Maintenance and repair)

ACC NR: AR6035427   SOURCE CODE: UR/0137/66/000/009/I071/I071

AUTHOR: Zhmuds'kyy, O. Z.; Kulichenko, V. P.; Maksymyuk, P. O.

TITLE: Study of the microsturcture of Al-Cu-Ni alloys

SOURCE: Ref. zh. Metallurgiya, Abs. 9I467

REF. SOURCE: Visnyk Kyyivs'k. un-tu. Ser. fiz. ta khim., no. 6, 1966, 10-11

TOPIC TAGS: aluminum alloy, copper containing alloy, nickel containing alloy, metal grain structure, grain size, metal heat treatment

ABSTRACT: Ingots of alloys of Al with 4% Cu and 0 - 2% Ni were deformed and annealed at 400° for 10 hours. The microstructure was investigated after annealing at 400°, quenching from 540°, and natural and artificial aging. With increase of the Ni content, the grain size decreases, and the boundaries expand and lose their continuity. The grain size and the state of the boundaries are practically unaltered by heat treatment. The decrease in the grain size is connected with the fact that Ni decreases the grain energy. From the Resume. [Translation of abstract]

SUB CODE: 11

Card 1/1   UDC: 669.715'3'24:620.18

MAKSYMOWICZ-MILOSZ, Elzbieta; HILGERTNER, Leszek

Covar and covar glass in Poland and abroad. Przegl elektroniki 2 no.7: 425-441 '61.

1. Przemyslowy Instytut Elektroniki(for Maksymowicz-Milosz) 2. Zaklady Szklarskie - Ozarow, Biuro Rozwojowe(for Hilgertner)

(Fernico)

MAKSYMOWICZ, Milosz, Elzbieta

Stresses in glass-to-metal seals. Przegl elektroniki 4
no. 2: 65-79 '63.

1. Przemyslowy Instytut Elektroniki, Warszawa.

COUNTRY   : Poland   H-13
CATEGORY   :

ABS. JOUR. : RZKhim., No.   1959, No. 87328

AUTHOR   : Maksymowicz-Milosz, E.; Hilgertner, L.
INST.   :
TITLE   : A Survey of the Polish Bulb-envelope Glass

ORIG. PUB. : Szklo i ceramika, 1959, 10, No 3, 68-74

ABSTRACT   : Characteristics are listed for 22 varieties
of bulb-envelope glass produced in Poland. Substantial
defects are noted in the currently adopted classification
of bulb-envelope glass. Bibliography 2 references.
                                        L. Sedov.

CARD:

HORBOWSKA, Hanna; WIELOPOLSKA, Hanna; SROCZYNSKA, Janina; WACHOWSKA, Maria;
    KOLODZIECZYK, Krystyna; LESKI, Bohdan; MAKSYMOWICZ, Malgorzata;
    TRUCHANOWICZ, Zofia

    Studies on the etiological factor of infantile diarrheas occuring
    during the fall and winter months of 1962-1963 in Warsaw. Med. dosw.
    mikrobiol. 16 no.2:93-100 '64.

    1. Z Miejskiej Stacji San.-Epid. i Miejskiego Szpitala Zakaznego
    Nr.3 w Warszawie.

L 22626-66

ACC NR: AP6002072

O

anisotropy constant and D is the mean diameter of a crystallite. The formula is valid under the assumption of sine-like oscillations of the magnetization vector and agreement with the experimental data is rather good. Orig. art. has: 5 figures, and 15 formulas. [Based on author's abstract.] [LD]

SUB CODE: 20/ SUBM DATE: 20May65/ OTH REF: 008/

Card 2/2 BLG

L 22626-66 EWA(d)/T/EWP(t) IJP(o) JD/JG

AUTHOR: Maksymowicz, Lidia; Maksymowicz, Andrzej

ORG: Department of Physics I, Academy of Mining and Metallurgy, Cracow (Akademiya gorniczo-hutnicza, Katedra fizyki I)

TITLE: Influence of a magnetic ripple on the reversible susceptibility of thin permalloy films

TOPIC TAGS: magnetization, saturation magnetization, magnetic field, magnetic susceptibility, reversible susceptibility, permalloy film, crystal anisotropy

ABSTRACT: In consideration of magnetization fluctuations, a corrected formula for the reversible susceptibility measured along the hard axis of a thin film is calculated by the simple domain theory and derived as follows:

$$\varkappa = M_s \left[H + H_U + \frac{g K^2 U^{1/2}}{8\pi \sqrt{2}\, U^{1/4}(h+1)^{1/4} A^{1/4}} \right]^{-1}$$

where H is a d-c magnetic field applied along the easy axis, H_U is the uniaxial anisotropy field, M_s is the saturation magnetization, U and A are the uniaxial anisotropy constant and exchange integral, respectively, K is the crystalline

Card 1/2

MAKSYMOWICZ, Krystyna

Amygdaloid complex of the dog. Acta biol. exp. 23 no.2:63-73
'63.

1. Department of Comparative Neuroanatomy, Jagiellonian Uni-
versity, Cracow and Laboratory of Neuroanatomy, The Nencki
Institute of Experimental Biology, Warsaw 22, Poland.
        (AMYGDALOID BODY)   (ANATOMY)

MAKSYMOWICZ, Elzbieta

Technology of vacuum-tight seals between mica and glass
and between mica and metal by soldering glass.   Przegl
elektroniki 3 no.11:652-653   N '62.

1.   Przemyslowy Instytut Elektroniki, Warszawa.

KREINER, J.; MAKSYMOWICZ, K.

A three-dimensional model of the striatal nuclei in the dog's brain.
Afta biol. exp. 22 no.1:69-79 '62.

1. Department of Comparative Neuroanatomy, Jagellonian University, Krakow and Neuroanatomical Laboratory of the Nencki Institute of Experimental Biology, Warsaw.

(GANGLIA BASAL anat & histol)

L 22626-66

ACC NR: AP6002072

O

anisotropy constant and D is the mean diameter of a crystallite. The formula is valid under the assumption of sine-like oscillations of the magnetization vector and agreement with the experimental data is rather good. Orig. art. has: 5 figures, and 15 formulas. [Based on author's abstract.]   [LD]

SUB CODE: 20/ SUBM DATE: 20May65/ OTH REF: 008/

Card 2/2   BLG

L 22626-66 EWA(d)/T/EWP(t) IJP(c) JD/JG

AUTHOR: Maksymowicz, Lidia; Maksymowicz, Andrzej

ORG: Department of Physics I, Academy of Mining and Metallurgy, Cracow (Akademiya gorniczo-hutnicza, Katedra fizyki I)

TITLE: Influence of a magnetic ripple on the reversible susceptibility of thin permalloy films

TOPIC TAGS: magnetization, saturation magnetization, magnetic field, magnetic susceptibility, reversible susceptibility, permalloy film, crystal anisotropy

ABSTRACT: In consideration of magnetization fluctuations, a corrected formula for the reversible susceptibility measured along the hard axis of a thin film is calculated by the simple domain theory and derived as follows:

$$\varkappa = M_S \left[H + H_U + \frac{gK^2D^{1/2}}{8\pi\sqrt{2}\,U^{1/2}(A+1)^{1/2}A^{1/2}} \right]^{-1}$$

where H is a d-c magnetic field applied along the easy axis, H_U is the uniaxial anisotropy field, M_S is the saturation magnetization, U and A are the uniaxial anisotropy constant and exchange integral, respectively, K is the crystalline

Card 1/2

PILECKI, St., MAKSYMOWICZ, A.

"Album rysunków technicznych do obróbki ręcznej i mechanicznej w warsztatach
szkolnych" (An album of technical drawings for hand machining and mechanical
machining in school workshops), by St. Pilecki, A. Maksymowicz. Reported in
New Books (Nowe Ksiazki), No. 13, July 1, 1955

MAKSYMOWICZ, A.

"Be careful with technical terminology." p. 433.

(Przeglad Techniczny, Vol. 74, no. 11, Nov. 1953, Warszawa.)

SO: Monthly list of East European Accessions, Vol. 3, No. 3, Library of Congress,
March 1954, Uncl.

MAKSYMIUK, Jan, mgr., inz.

Possibilities of measuring contact resistance by means of small
rectified currents. Przegl elektrotechn 37 no.10:407-410 '61.

1. Katedra Przyrzadow Rozdzielczych, Politechnika Warszawska.

(Electric resistance)

MAKSYMIUK, Jan, mgr inz.

Operational retardation of fade releases cooperating with high voltage
circuit breakers. Wiad elektrotechn 19 no.9:264-265 S '59.

1. Katedra Przyrzadow Rozdzielczych, Politechnika, Warszawa.

POL/24-59-8-2/13

Switching Characteristics of the Dry Circuit Breakers, Model N 107-III-40, Under
Special Working Conditions

ASSOCIATIONS: Biuro Znaku Przepisowego SEP (Trademark Code Office of SEP), Ka-
                tedra Przyrządow Rozdzielczych P.W. (Chair of Power Distribution,
                Polytechnica University of Warsaw).

Card 2/2

8(2)   POL/24-59-8-2/13

AUTHORS: Lipka, Zygmunt; Morzycki, Witold; Maksymiuk, Jan, Mgr. Engineers

TITLE: Switching Characteristics of the Dry Circuit Breakers, Model N
              107-III-40, Under Special Working Conditions

ABSTRACT: The article describes tests made on the Polish-manufactured cir-
              cuit breakers of above type, originally constructed for a-c, but
              to be used with both d-c and a-c loads up to 80 amperes (550 volts
              a-c, 275 volts d-c) by laboratories testing electrical equipment
              for quality and for awarding the "Seal of Approval". After ex-
              tensive tests for reliability and efficiency consisting of 5,000
              switching operations (on-off) under full loads (275 volts - 35
              amperes, 2,750 volts - 80 amperes, and 550 volts - 80 amperes)
              it has been found out that they can completely replace the more
              expensive model "SP" designed for d-c.
Card 1/2   There are 5 circuit diagrams.

MAKSYATKINA, N.I.

Substance and energy metabolism in heifers fed increased amounts
of silage in summer. Trudy VNIIK 3:213-242 '56.   (MLRA 10:4)
        (Cows--Feeding and feeding stuffs) (Ensilage)
                (Metabolism)

MAKSYAGIN, V.M., inzh.

Experience in using optical instruments in centering main
engines and shafts. Sudostroenie 24 no.7:65-66 Jl '58.
        (Marine engineering)   (MIRA 11:9)

MAKSYAGIN, V.

On the right trail. Pozh. delo 5 no.10:24-25 O '59.

(MIRA 13:2)

(Fire departments--Equipment and supplies)

MAKSYAGIN, V.

Efficiency promoters in Kharkov. Pozh.delo 3 no.5:19 My '57.

(MLRA 10:7)

(Kharkov--Fire engines)

L 42281-66

ACC NR: AT6014516

set equal to 2, and a study is made of the effect of the geometry of the region of
the shell wall where the wall and shell bottom are joined and the effect of the form
of the bottom on the stressed state. Three shell models are considered (see Fig. 1).

Fig. 1. Shell geometry with
varying bottom form. a -
model 1; b - model 2; c -
model 3.
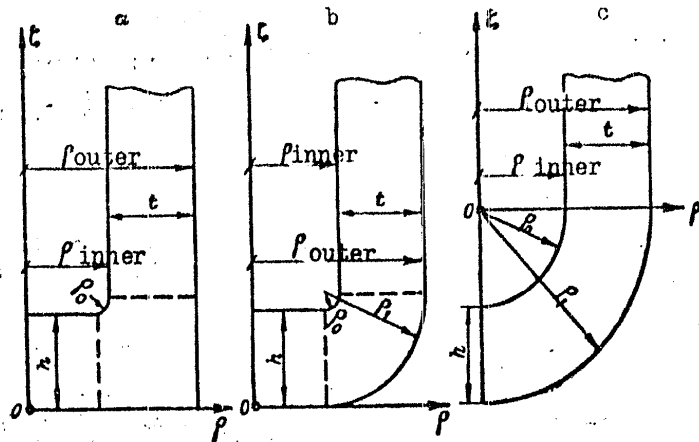
A general system of equations is developed, and the tracing of stress path contours
is demonstrated for each shell model. Additional discussions are devoted to the rate
of development of stress distributions for fixed parameter settings. Orig. art. has:
3 equations and 9 figures.

SUB CODE: 20/ SUBM DATE: 07Apr64/ ORIG REF: 001

Card 2/2

L 42281-66   EWT(d)/EWT(m)/EWP(w)/EWP(v)/EWP(k)   IJP(c)   WW/EM
ACC NR: AT6014516   (A,N)   SOURCE CODE: UR/2753/65/000/004/0193/0206

AUTHOR: Maksutova, T. D.

ORG: none

TITLE: Photoelastic investigation of the effect of the bottom form on the stressed state of thick-walled containers

SOURCE: Leningrad. Universitet. Matematiko-mekhanicheskiy fakul'tet. Issledovaniya po uprugosti i plastichnosti, no. 4, 1965, 193-206

TOPIC TAGS: shell, circular shell, cylindric shell structure, stress analysis, stress distribution, shell deformation

ABSTRACT: A continuation of results is presented on the polarization-optical investigation of thick-walled cylindrical shells. The earlier work was described by T. D. Maksutova (Fotouprugoye issledovaniye tolstostennykh sosudov s ploskim dnishchem. Issledovaniya po uprugosti i plastichnosti. Sb. 3. Izd. LGU, 1964). The aim of the current article is to obtain the most complete description possible of the stressed state as a function of values of parameters characterizing the geometry of shells. Previous work was involved with studying the effect of the ratio of the inner radius R_1 of the cylinder to the outer radius R_0 on the stressed state of a cylindrical shell with a flat circular bottom of constant thickness. In the current article R_1/R_0 is

Card 1/2

MAKSUTOVA, T.D.

Photoelasticity of thick-walled vessels with plane bottoms.
Issl. po uprug. i plast. no.3:208-224 '64. (MIRA 17:6)

MAKSUTOVA, T.D.

Optical and mechanical properties of double copolymers. Issl.
po uprug. i plast. no.2:167-186 '63.   (MIRA 16:8)
    (Polymers—Optical properties) (Polymers—Elastic properties)

MAKSUTOVA, T. D.

Leningrad. Universitet

Polyaritsatsionno-opticheskiy metod issledovaniya napryazheniy; trudy konferentsii
po optieheskomu metodu analiza napryazheniy (Optical Polarization Method for Stress Analysis;
Transactions of the Conference of February 13-21, 1958). [Leningrad] Izd-vo
Leningradskogo univ., 1960. 451 p. Errata slip inserted. 2,400 copies printed.

Resp. Ed.: S.P. Shikhobalov; Ed.: Ye.V. Shchemelev; Tech. Ed.: S.B. Voskolnina;
Editorial Board: B.G. Gutman, L.M. Kachanov, V.M. Krasnov, I.D. Maksutova,
N.I. Prigorovskiy, V.K. Prokopo, N.S. Rozanov, and Ye.I. Shekhtorp.

PURPOSE: This collection of 59 articles is intended for scientists and engineers
concerned with experimental stress analysis of machine parts and structural
components.

COVERAGE: The collection contains reports presented at the conference on optical
polarization method in stress analysis held February 13-21, 1958, in
Leningrad and attended by 324 delegates including representatives of the People's
Republic of China, the Polish People's Republic, the German Democratic Republic,
and the Republic of Czechoslovakia. The reports discuss general theoretical
problems and new methods of investigation and describe apparatus and materials
used in the optical method. Solutions of specific two-dimensional and three-
dimensional problems occurring in shipbuilding, aircraft design, engine con-
struction, in various branches of heavy and precision machine design, in mining,
metallurgy, hydraulic structures, railroad transport, in structural mechanics,
geophysics, etc. are given. Solution of the three-dimensional problem by means
of the method of photoelasticity is introduced and the use of this method for
the solution of problems associated with plasticity, creep, dynamic, hydro-
dynamics, etc. is demonstrated. Reports previously published elsewhere are
printed here in abbreviated form. No personalities are mentioned. References
are found at the end of 47 of the reports.

Optical Polarization Method (Cont.) SOV/4042

39. Spektor, A.I. Use of the Optical Method for Stress Analysis in
Solving Several Problems Connected With Mine Pressure 312

II. ANALYSIS OF STRESSES IN MACHINE PARTS

40. Kvasnko, D.M. Investigation of Stress Distribution Around
Chambers and Working Faces 317

41. Maksutova, T.D. Investigation by the "Chilling" Method of the Three-
Dimensional State of Stresses of the Servomotor Piston of a Hydraulic-
Turbine Rotor 321

42. Shikhlov, B.Yu. Stress Analysis by Means of the Optical Polarization
Method of the Rotating Disk of a Axial-Flow Compressor 332

43. Shapiro, G.S., M.A. Nikram, and L.S. Roleshko. Experimental Solution
of the Problem of the Compression of a Cube and Cylinder Between Rigid
Plates Without Friction 343

Card 9/12

MAKSUTOVA, T.D.

The Building of **Complex Form Models** for the optical Method   32-2-45/60
of Tension Investigations

tion. A table of suitable alloys is given. The model molds themselves can be cast in plaster. An alloy of 40% Pb, 40% Sn, 20% Sb is said to be of good castability and is recommended for decomposable model molds. The method described makes it possible to construct models with an exactitude of $\pm$ 0,05 mm.
There are 2 figures, 2 tables, and 7 references, 4 of which are Slavic.

ASSOCIATION: **Leningrad State University imeni A. A. Zhdanova** (Leningradskiy gosudarstvennyy universitet im. A.A. Zhaanova)

AVAILABLE: Library of Congress

1. Resins-Molding

Card 2/2

MAKSUTOVA, T.D.

AUTHORS: Maksutova, T. D., Shikhobalov, S. P.,   32-2-45/60

TITLE: The Building of **Complex Form Models** for the Optical Method
             of Tension Investigations (Izgotovleniye modeley slozhnykh
             form dlya opticheskogo metoda issledovaniya napryazheniy)

PERIODICAL: Zavodskaya Laboratoriya. 1958, Vol. 24, Nr 2, pp. 231-233 (USSR)

ABSTRACT: In order to destroy the "edge effect" in optically active mate-
             rials a method of modelling was developed which also renders a
             mechanical treatment of the finished models unnecessary. The me-
             thod is based on the casting of synthetic resin in metal molds,
             and on the out-polymerization of the resin used here. With this
             attention must be paid to the possibility of the escape of bub-
             bles. A table is given of these synthetic resins that can be
             used here, and of their specific properties. With a bakelite
             (БГ) casting a strong edge effect could be noticed whilst the
             best results were given by "expoxy-resins" with maleic anhydride
             as hardener. The undecomposable model molds should consist of
             metal alloys with a narrow melting range (a little above the
             maximal polymerization temperature of the synthetic resin) so
             that they can easily be melted off after the resin polymeriza-

Card 1/2

124-57-2-2436

Experimental Investigation of the Stresses in a Hydraulic-turbine Blade

to the thickness of the blade profile and subjected to the same thermal and other conditions as the blade model, but free of any external forces. It is shown that in the bakelite used an "edge effect" arises as a result of desiccation, i. e., the separation of component substances, mainly water and phenol, and that a work-ing medium may be found in which the "edge effect" does not occur. In a prac-tical attempt to avoid any "edge effect" the model was loaded in a water-gly-cerol mixture and was protectively coated with latex. The interpretation of the stress conditions in the blade was performed according to the formulas of three-dimensional photoelasticity. The results lead to the conclusion that the blade, considered as a shell with variable thickness, is subjected to pure moment stresses. A comparison with L. M. Kachanov's solution (Rzh Mekh, 1955, abstract 906) is also adduced.

V. M. Krasnov

1. Turbine blades--Stresses   2. Stress analysis

Card 2/2

124-57-2-2436

Translation from: Referativnyy zhurnal, Mekhanika, 1957, Nr 2, p 132 (USSR)

AUTHORS: Shikhobalov, S. P., Krasnov, V. M., Maksutova, T. D., Tseyts, V. V., Edel'shteyn, Ye. I.

TITLE: Experimental Investigation of the Stresses in a Hydraulic-turbine Blade (Eksperimental'noye issledovaniye napryazhennogo sosto-yaniya lopasti vodyanoy turbiny)

PERIODICAL: V sb.: Vopr. prochnosti lopastey vodyanoy turbiny. Leningrad, Izd-vo LGU, 1954, pp 174-216

ABSTRACT: Presentation of an experimental investigation of the stresses prevailing in a hydraulic-turbine blade subjected to the action of a pressure uniformly distributed over its working surface. The investigation was conducted by means of the photoelastic method, wherein the model was "frozen" and subsequently sectioned off. The model was made of bakelite; the bakelite resin was cast into a mold made of a readily fusible alloy. The uniform pressure was exerted by means of a system of glass rods located vertic-ally on the working surface of the blade. In the determination of the stresses due to the edge effect, use was made of data on the "edge effect" in a bakelite wedge having a thickness equal

Card 1/2

ZHIRITSKIY, Georgiy Sergeyevich, prof.; LOKAY, Viktor Iosifovich;
MAKSUTOVA, Makhfuzya Karimovna; STRUNKIN, Valentin
Aleksandrovich; GUROV, A.F., doktor tekhn. nauk, prof.,
retsenzent; KHOLSHCHEVNIKOV, K.V., doktor tekhn. nauk,
prof., retsenzent; KULAGIN, I.I., doktor tekhn.nauk, prof.,
retsenzent; LEPESHINSKIY, I.A., inzh., red.; BOGOMOLOVA,
M.F., red.izd-va; NOVIK, A.Ya., tekhn. red.

[Gas turbines of aircraft engines] Gazovye turbiny aviatsion-
nykh dvigatelei. Moskva, Oborongiz, 1963. 604 p.
(MIRA 16:9)

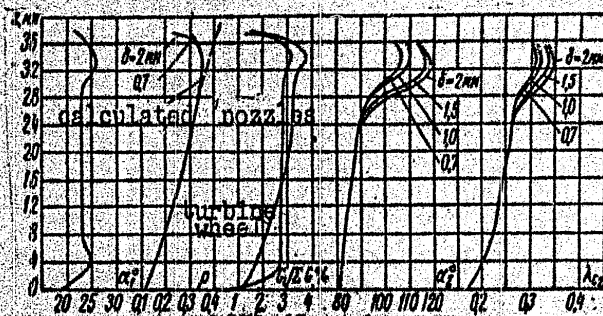(Gas turbines)   (Airplanes—Engines)

L 14017-66
ACC NR: AP6004166

Fig. 2. Radial profiles with type II blades

The maximum efficiency as a function of radial clearance is shown graphically. The experimental results were compared with those obtained by calculations from equations proposed by A. M. Zavadovskiy (Osnovy proyektirovaniya protochnoy chasti parovykh i gazovykh turbin, Mashgiz, 1960) and by others. The calculated and experimental quantity G_y/G (where G_y = flow through the radial clearance) is also shown graphically.

[04]

Orig. art. has: 5 figures, 1 table, and 2 formulas.

SUB CODE: /O/ SUBM DATE: none/ ORIG REF: 004/ OTH REF: 001/ ATD PRESS:

4196

Card 3/3

L 14017-66
ACC NR: AP6004166

$$q = 1 - \frac{(1 - \rho_{cp})}{r2\rho_1^2 cos^2 a_1}.$$

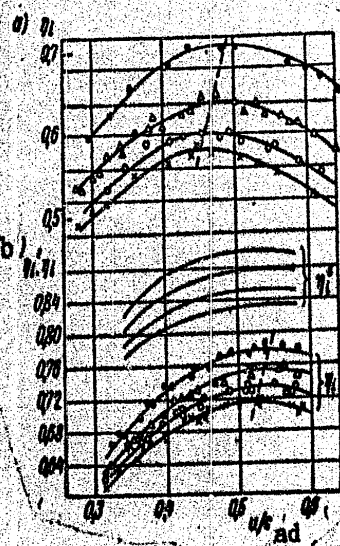Fig. 1. Efficiency characteristics (type
I: δ = 1.35, 2.25, 3.21 and 4.25;
II: δ = 0.7, 1.0, 1.5, 2.0)

Card 2/3

L 14017-66   EWT(l)/EWT(m)/EWP(w)/EWP(f)/EWP(v)/T-2/EWP(k)/ETC(m)-6   JD/WW/EM

ACC NR: AP6004166   SOURCE CODE: UR/0114/66/000/001/0028/0030

AUTHORS: Zanadvorova, V. N. (Candidate of technical science, Docent); Maksutova, M. K. (Candidate of technical science, Docent)

ORG: none

TITLE: Effects of radial clearance on turbine characteristics

SOURCE: Energomashinostroyeniye, no. 1, 1966, 28-30

TOPIC TAGS: turbine efficiency, turbine design, turbine, turbine blade, turbomachinery

ABSTRACT: Experiments were performed at the Kazan' Aviation Institute on two types of blades to determine the effects of radial clearance on turbine characteristics. The characteristics were obtained as functions of speed and of radial clearance (to $\delta/\ell = 9\%$), and radial and circumferential flow profiles were obtained at the turbine wheel inlet and outlet. Efficiency as a function of speed and radial clearance for the two types of blades is shown in Fig. 1. Circumferential profiles at 4 radial positions were found to be essentially unaffected by the radial clearance. The radial profiles of α_1, reactivity ρ, specific flow rate $G/\Sigma G$, α_2, and dimensionless speed λ_{c2} for one type of blade are shown in Fig. 2 for various radial clearances. The degree of reaction was also calculated from

Card 1/3   UDC: 621.438:66-971.001.

that the comparison of turbine operation on gases with different
adiabatic indices k should be made in regimes having similar velocity
triangles. In this case the values of the efficiency and reactivity
remain unchanged. The similarity of velocity triangles may be main-
tained only at subcritical flow regimes. Strictly speaking, the
similarity is only slightly disturbed in the case of supercritical
regimes. The difference does not exceed 1% in the case of the
efficiency coefficient. Orig. art. has: 10 formulas.

ASSOCIATION: Kazanskiy aviatsionnyy institut (Kazan Aviation Institute)

SUBMITTED: 00   ATD PRESS: 3066   ENCL: 00

SUB CODE: PR   NO REF SOV: 001   OTHER: 000

Card 2/2

ACCESSION NR: AP4042617   S/0096/64/000/008/0029/0033

AUTHOR: Maksutova, M. K, (Candidate of technical sciences)

TITLE: Influence of the adiabatic index k on turbine characteristics

SOURCE: Teploenergetika, no. 8, 1964, 29-33

TOPIC TAGS: turbine test, turbine operation medium, adiabatic index, aviation turbine

ABSTRACT: The influence of the properties of the working medium on the operation of a turbine is evaluated and the transfer of the results of turbine tests obtained with one medium to the actual operating medium is analyzed on the basis of the similitude theory. An analytical method is proposed to account for the influence of the adiabatic index k in various regimes of the turbine. The adiabatic index k is, together with the viscosity and gas constant, one of the basic characteristics of the operating gases which influence the regimes of the turbine. It is assumed that the velocity coefficients ϕ and ψ and the flow direction in the interblade channels are independent of the gas composition. This analysis leads to the conclusion

Card 1/2

AM4008915

processes in gas turbines (different modifications), thermodynamic
and gas dynamic calculations for nominal and variable operating con-
ditions, cooling systems used for the hot parts of the turbine,
turbine design and construction, and strength calculations. The book
is based on a 1950 text "Aviation Gas Turbines" by Professor G. S.
Zhiritskiy, on work by Soviet and other scientists, and on findings
of the Turbine-Machinery staff of the Kazan Aviation Institute, who
rendered great help in planning the book. The authors are also
grateful to Professors A. F. Gurov, I. I. Kulagin, and K. V. Khol-
shchevnikov for many useful hints during the review of the book.

TABLE OF CONTENTS [abridged]:

Card 2/5

AM4008915   BOOK EXPLOITATION   s/

Zhiritskiy, Georgiy Sergeyevich (Professor); Lokay, Viktor Iosifovich;
Maksutova, Makhfuzya Karimovna; Strunkin, Valentin Aleksandrovich

Gas turbines of aircraft engines (Gazovy*ye turbiny* aviatsionny*kh
    dvigateley) Moscow, Oborongiz, 63. 0608 p. illus., biblio.,
    graphs. 9,000 copies printed.

TOPIC TAGS: gas turbine, aviation turbine, gas turbine aerodynamics,
gas turbine thermodynamics, gas turbine design, gas turbine con-
struction, gas turbine strength calculation, gas turbine operation

PURPOSE AND COVERAGE: This is a systematized textbook on gas tur-
bines for aviation higher technical institutions and can be used at
the same time by gas-turbine designers. It contains the theory,
methods of calculations, and a review of constructions of gas tur-
bines employed in aviation gas-turbine and liquid-fuel-jet engines,
and also in auxiliary aircraft engines. It deals with the working

Card 1/5

MAKSUTOVA, M.K. (Kazan')

Joint operation of a turbine and compressor in a turbojet engine.
Trudy KAI 38:257-274 '8. (MIRA 16:8)
(Gas turbines)

S/096/60/000/07/011/022
E194/E455

Characteristics of a Gas Turbine Determined from Test Results
with a Small Heat Drop

the blading also alters. Therefore, before the
adjustments are made, it is necessary to determine
which operating conditions of the turbine correspond
to critical velocity of flow at discharge from the nozzle
or runner blades. If critical conditions are found to
occur first in the runner, the maximum flow is
determined from the limiting value of the referred flow
speed at discharge from the nozzle, which can itself be
found from the inlet velocity triangle. There are
1 figure and 3 Soviet references.

ASSOCIATION: Kazanskiy aviatsionnyy institut
(Kazan Aviation Institute)

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